



WORLD WETLANDS DAY
2023 WORKSHOP IN
HALIFAX REGIONAL
MUNICIPALITY

What We Heard Report

Introduction

On February 2, 2023, World Wetlands Day, the Ecology Action Centre, Nature Nova Scotia, and Halifax Regional Municipality (HRM) conducted interactive workshops on the protection and management of wetlands in Nova Scotia. Both workshops took place at the Captain William Spry Community Centre in Spryfield, HRM. The morning workshop, hosted by all three organizations, brought together primarily government and NGO stakeholders with interests in wetlands, natural areas, and watershed protection and management. The second workshop, hosted in the evening by the Ecology Action Centre and Nature Nova Scotia, was geared toward the general public.

Forty-five participants attended the morning workshop. About a dozen more people had expressed interest in coming but, because the room was at capacity at 45 participants, they were unable to attend. Approximately half the participants were employees with the provincial government or municipalities, including HRM and other municipalities in central Nova Scotia and along the South Shore. Many of the municipal employees were planners working on municipal policy, permit applications, and environmental planning, and environment staff working on urban forests, water resource issues, wetlands, and natural areas. The other participants were representatives from local ENGOs, grassroots organizations, consultants and academics. Representatives from ENGOs and community groups included volunteers and staff from watershed groups and regional or national organizations. The ENGO staff that participated work on a wide range of issues including public education, ecological research and monitoring, wetland compensation projects, advocacy, and restoration.

Forty-five participants from the general public attended the evening workshop. These participants included community volunteers, professionals (technologists, scientists, etc.), artists, post-secondary students, leaders from community-based organizations, and land owners. In addition to the participants, both workshops included four facilitators and four notetakers.

Both workshops were exploratory and collaborative. The format included introductory presentations about different aspects of wetlands in Nova Scotia followed by breakout discussions in groups. In the morning (professionals) workshop, a staff member from HRM spoke about the importance of wetlands and reviewed wetland regulations in HRM and Nova Scotia. Meaghan Quanz (Ducks Unlimited Canada) provided background on wetland compensation under the Nova Scotia Wetland Conservation Policy. In the evening (public workshop), Becky Parker (Nature Nova Scotia) spoke about the importance of wetlands, and provided an overview of the Nova Scotia Wetland Conservation Policy.

After the presentations, participants organized into breakout groups of 10–11 participants for facilitated discussions, guided by questions exploring wetlands protection and management in the future. Notetakers recorded the discussions in each group.

Guiding questions in the morning session included:

- How do you interact with protecting wetlands (either through the policy or other means)?
- What are the strengths of how wetlands are currently protected?
- What do you think are ways to protect wetlands/bring attention to wetlands now and in the future?

In the evening session, the guiding questions included:

- Do you have any personal stories about wetlands: What do they mean for you? Is there a wetland/an area of wetlands that is particularly important to you?
- What do you envision protecting wetlands/wetland management to look like in the future?
- What could be done better right now to achieve that future?

Findings



The following themes emerged from the breakout discussions at each of the workshops.

Morning (Professionals) Workshop

Theme 1: Policy and legislation are important; the current policy needs improvement.

Participants communicated their belief that the Nova Scotia Wetland Conservation Policy is a good baseline for wetland protection, but it is outdated and needs to be improved to better protect wetlands. Participants suggested that the designation of Wetlands of Special Significance (WSS), and the protections given to these wetlands, are the strongest aspects of the Policy. Participants also understood that with new science and research, including wetland restoration and more accurate mapping techniques, the Policy can better protect wetlands and monitor changes.

Participants also discussed how the new generation of planners is keen to understand the value of environmental and climate change considerations, and that policy and bylaws need to be updated regularly to make these considerations a priority. Furthermore, efforts by governments to define sustainable development for sensitive areas and requiring development agreements can help to educate developers about and raise the level of support for sustainable development. At the municipal level (specifically HRM), participants noted that riparian buffer by-laws provide some protection for some wetlands and that HRM's conservation design policy (for rural land subdivision) addresses wetlands.

Participants offered suggestions for how the Nova Scotia Wetland Conservation Policy could be improved, including: updating the provincial wetland inventory and making the WSS inventory publicly available; reducing harmful activities like pesticide/insecticide use and clear-cutting in and around wetlands; adapting the policy to reflect an indigenous perspective; using stronger protections for Species at Risk; requiring vegetated/natural buffers for all wetlands, and ensuring proper enforcement of those buffers; improving policy implementation through regulation enforcement, in general; incorporating socio-cultural values into identifying WSSs. Participants believed that wetland and ecosystem science and watershed-scale thinking should guide future modifications to the policy, rather than politically motivated changes or changes that favour short-term economic gains.

Theme 2: Government needs to be more proactive in wetland protection; strong inter-government and cross-government cooperation is important for protecting wetlands.

Participants expressed their thoughts on the need for governments to take better care and accountability regarding wetland protection. There was strong agreement that governments need to take a more proactive approach in wetland management and that they need to place higher value on wetlands as these natural features provide essential services for communities, and are vital in climate change adaptation.

The workshop participants felt strongly that in order for wetlands to be better protected, relations among the different governments need to be more collaborative, particularly between the province and municipalities and governments need to better coordinate their work in wetland management. Many participants, particularly municipal staff, used the example of wetland buffers, which are not well-coordinated or practices standardized between municipalities and the province. Where buffers are not required but only encouraged by the Policy, there is little guidance from the province as to how municipalities could go about forming their own buffer requirements. Participants also believed that coordination between departments, branches and teams within each level of government needs to be strengthened.

Theme 3: There is value in coalition-building and inclusive collaboration including with landowners and developers.

The participants voiced their belief in the strength of coalitions among organizations to better protect wetlands, and that inclusive collaboration is key. A consistent message across all breakout groups was the importance of leadership by, and collaboration with, local Indigenous communities. Coalition building, including with local grassroots organizations, land owners, and developers, encourages meaningful discussion of solutions for stronger wetland management.

In order to best work together with different stakeholders through coalitions and inclusive collaboration, participants suggested emphasizing the following: the benefits of stronger wetland protection for each stakeholder; the consequences of destroying and/or degrading wetlands (including long-term financial implications); and increasing general education about wetlands for all stakeholders. In addition, concerns about on-going wetland loss through perceived or actual breach of policy and regulations pointed to the need for consistent application and/or strengthening of existing laws, along with transparency around decisions about applying the rules around wetland management.

Theme 4: Better protection of wetlands requires prioritizing education. The media has an important role in spreading awareness.

There was strong agreement among the workshop participants that in order to better protect wetlands, education about wetlands needs to be prioritized. This includes education for a variety of stakeholders, as discussed above. Education initiatives and programming should provide an overview of what wetlands are, why protecting them is important, how they are connected with other ecosystems like beaches, streams, rivers, lakes and groundwater, and the role of wetlands in climate change mitigation and adaptation in Nova Scotia. Furthermore, the importance of wetlands in maintaining ecosystem health for current/future generations and our current/future responsibilities to look after wetlands and the planet should be emphasized.

Many participants stated that the media has played, and will continue to play, an important role in spreading awareness and public education about wetlands. The media has already played an important role in informing the public when politicians, governments, and developers are working on issues related to wetlands. Participants felt that this spreading of awareness by the media helped influence politicians to act on some of the issues the media has highlighted.

Participants also felt that as the media raises awareness of wetlands, citizens and grassroots groups have become more vocal in communicating concerns about threats to local wetlands. The more citizen groups have become vocal on local wetland issues, the more the media is covering the topic. This was seen as a positive cyclical relationship in bringing more attention to the importance of wetlands.





Theme 5: Science should underpin general wetland management and when planning developments near wetlands, including in urban areas.

Threaded throughout the workshop conversations was the importance of relying on science in wetland management. In particular, science supports a holistic approach in conservation, protection, and maintaining healthy ecosystems. For example, an abundance of research highlights the importance of wildlife corridors, including the role that wetlands play within these corridors. In addition, not only does science help with planning decisions in relation to wetlands, but it should be used to regularly monitor the quality and health of wetlands, connected ecosystems, and local biodiversity. Regularly monitoring wetlands and capturing data should also be used as a tool by the Province to analyze whether the provincial wetland policy is achieving its goal of no net loss of wetlands and no loss of WSSs. Participants highlighted that currently, it is unknown how effective the policy has been in achieving these goals. Some participants pointed to the holistic frameworks and approaches taken by the Conservation Authorities in Ontario as something that can be replicated in Nova Scotia to promote better wetland protection, particularly from a hydrologic (watershed) function approach.

Because the workshop took place in the Halifax Regional Municipality, many people brought up wetland management in urban areas, especially those who were employed by a municipality. In particular, there was a call to use science to guide a more holistic approach to planning, and to plan 'with nature' rather than 'against' it. Similarly, workshop participants pointed to the many benefits of green infrastructure and naturalization approaches in urban areas. There was also a call to promote and plan for higher levels of density in urban areas rather than planning for urban/suburban sprawl which leads to wetland loss in the context of general destruction of natural areas.



Evening (Public) Workshop

Theme 1: Policy is important. Improvement of the current policy and wetland governance is needed.

A clear, overarching theme throughout the discussions was the importance that policy and governance play in protecting wetlands. Participants saw the value in the current Nova Scotia Wetland Conservation Policy, but expressed the need for strong improvements. The silos that exist in how wetlands are managed and who manages wetlands, particularly in how wetlands are regulated (i.e., the different players within governments, between governments, and outside of government), emerged as a primary obstacle to achieving strong wetland protections. Tied to this concern, was the belief that many loopholes exist in wetlands regulation and that the siloed approach to wetland protection blocks addressing these loopholes. In particular, some participants expressed concern that some development plans may be falling through these loopholes.

Much of the discussion on how to improve the Policy and associated regulations centered on closing the aforementioned loopholes, and increasing collaboration within governments and between governments. Some specific updates to the Policy and municipal regulations were also discussed, including: using a watershed-based approach to policy and planning; assessing and monitoring impacts of wetland degradation and destruction on a watershed and sub-watershed level; increasing provincial and municipal capacity to enforce wetland policy and regulations; including wetlands smaller than 100 square metres because they are particularly vulnerable.

Theme 2: Education is important for protecting wetlands and reconnecting people with nature.

Another key recurring topic among workshop participants was the value of educational initiatives in strengthening wetland protection. In general, participants felt that changing people's perceptions of wetlands is key. So often, wetlands have been viewed or perceived in a negative light (e.g., full of bugs, stinky, muddy, inconvenient, not nice to look at, and limited use for human recreation). Participants identified the need for positive messaging around what wetlands are and how they benefit both humans and nature as a way to change how wetlands are understood by the public. This positive messaging should include discussions around health, wellness, recreation, and climate change mitigation/adaptation. Participants suggested the importance of directly addressing youth and families with this messaging.

Beyond wetlands, the workshop participants pointed to the need to better connect people to nature. By connecting to nature, and learning more about local ecosystems and biodiversity, the way people see and engage with nature can change for the better. For example, one of the discussion groups examined the way in which an unmowed lawn should not be viewed as ugly, messy or unkempt, but rather a place where local biodiversity can flourish and stormwater can be better managed.



Theme 3: How wetlands are valued matters.

Connected to the theme of improved understanding of wetlands, workshop participants pointed to the lack of appreciation for the value of wetlands as a contributing factor to why these natural features have been misused, degraded, and destroyed since European colonization began. The underappreciation of wetlands continues. For example, land containing wetlands is often undervalued, making the land less expensive to buy. Furthermore, participants felt that the full cost of wetland destruction (including the costs associated with losing the benefits wetlands provide such as flood mitigation, and the loss of benefits to human health and wellness) by the province is not properly applied when approving applications for wetland alterations. One discussion group suggested that there should be better incentives for the private protection of wetlands such as compensation to take care of a wetland on private property. Participants also suggested that wetlands should be identified as a public good for the ecosystem services they provide.

Theme 4: Work and research done by grassroots organizations and neighbourhood groups are very valuable.

The workshop participants emphasized the extent and significance of advocacy, awareness spreading, research, and organizing done by local community groups regarding the protection of wetlands. These groups are viewed as dedicated and knowledgeable and some participants expressed that much of the protections for wetlands that are in place are thanks to the hard work and leadership done by these groups. Some participants described how these community groups have been able to assist with identifying and monitoring local wetlands not included in inventories. The local knowledge held by grassroots organizations is also key for including social and cultural values in wetland protection.

Development of these types of community groups in the rural areas of Nova Scotia was seen as a positive initiative by the workshop participants; however, participants felt that meaningful funding and support by governments were needed. The work of these groups should also be examined to learn about different approaches, tactics, and initiatives that have been used in wetland protection efforts, and their success.

Theme 5: Information and monitoring data are necessary to understand how successful policy and regulations are in protecting wetlands.

While policy and regulations were emphasized as central ways to enhance the protection of wetlands, the workshop participants discussed that ongoing monitoring and data collection on wetlands was needed to support the policy. For example, in order to better understand how effective the Nova Scotia Wetland Conservation Policy and regulations (provincial and municipal regulations) are in protecting wetlands, monitoring and data collection must be completed and compiled into a central provincial database. There was concern that even if data already exists, it is not stored in a central database available for analysis, or compiled in a standardized way that would make it simple for outside experts to analyze. Therefore, it is not known how effective the policy has been in protecting wetlands since 2011. The perception among the participants was that alteration and compensation for wetlands in Nova Scotia (that is, permitting wetland destruction) is more commonplace than protection. Participants believe that the majority of applications to alter a wetland do eventually result in approval. Only access to data and analysis can confirm or disprove this perception. Furthermore, participants pointed out that wetland compensation is not happening where alterations are being approved which, in turn, means certain communities and watersheds are experiencing a decline of wetlands at a disproportionate rate.

Participants suggested long-term funding and resources should be allocated for consolidated data in order to have strong and up-to-date information regarding: wetland mapping and inventory; compensation projects (data on size, location, and type of these projects); success of compensation projects (completion; sustained, healthy wetland environment); and wetland alteration (data on size, location, and type of wetlands that are being altered). In addition, there was strong agreement that cumulative impacts of wetland alteration need to be emphasized in data, but also in policy and regulations, and in the Environmental Assessment process.





Key Messages and Recommendations

The importance of wetlands for ecosystem health and resilience has become even more apparent in the context of the climate and biodiversity crises. The Nova Scotia Wetland Conservation Policy is a good baseline for wetland protection, but it has not undergone comprehensive review since it was released in 2011 and the pressures on wetlands, and the watersheds and coasts that they occupy, are increasing. Good policy requires periodic public review. The review and data should be transparent and accessible. Governments, NGOs, landowners, and citizens at large should be working together for wetland protection.

Below is a summary of the key messages from the workshop discussions. Also included are recommendations for further wetland protections that were suggested by the participants. The aim is that these conversations around wetland protections will not end here. Similar workshops in the future held in communities across Nova Scotia would be of high value. Furthermore, conversations that centre Indigenous communities, knowledge, and perspectives are of utmost importance.

Key Messages

- Review and evaluate the Nova Scotia Wetland Conservation Policy and associated regulations for effectiveness in halting and reversing wetland losses (area, type, and function). Identify and address shortcomings. Examine municipal policies and regulations too.
- Revise the policy to meaningfully incorporate Indigenous perspectives and leadership.
- Review the administration of wetlands policy and regulation within governments, between governments, and with outside organizations.
- Build collaboration, coordination, and communication across all wetland interests within, between, and outside of government. Eliminate siloed wetland management.
- Update the wetland inventory. Make wetlands data – location, health, alterations permitting, compensation decisions, and adherence and success/failures – accessible and transparent.

- Use full value accounting for wetlands incorporating ecosystem services contributions and non-monetized values. Account for cumulative impacts of wetland loss when reviewing applications for wetlands alterations.
- Use a watershed and ecosystems-based approach to wetlands protection and management.
- Use citizen science and local and Indigenous knowledge to map, measure, monitor, and protect wetlands.
- Educate the public about wetlands and their value. Work with the media to draw attention to wetlands, including challenges to and successes with protecting them.

Recommendations

RECOMMENDATIONS REGARDING WETLAND POLICY

The strongest aspect of the Nova Scotia Wetland Conservation Policy is the designation of Wetlands of Special Significance (WSS), and the protections given to these wetlands.

- Make the Wetlands of Special Significance (WSS) inventory publicly available.
- Include social and cultural values in identifying WSS.
- Provide stronger protections for species through WSS.

Update the provincial wetland inventory.

- Regulatory update publically available wetland mapping and inventory.
- Map wetland gains (compensation projects) and losses (permitted alterations/destruction). Connect losses and gains to watersheds.
- Include wetlands smaller than 100 square metres (0.01 ha) in the policy because they are particularly vulnerable to development, important micro-hydrologic features, and important amphibian habitat.

Require a naturally vegetated buffer around any wetland where development (urban, recreational, resource, agricultural) encroaches on the site.

- Use wetland and ecosystem science and best practices to identify buffer width. The buffer requirement must apply to all wetlands.
- Ensure that buffers are enforced during and after development, and with change in land ownership.
- Improve buffer protection effectiveness by reducing or eliminating harmful activities like pesticide/insecticide/herbicide use.



RECOMMENDATIONS REGARDING POLICY IMPLEMENTATION – REGULATIONS AND DATA

Successful policy implementation needs consistent and transparent enforcement of regulations. The public needs to understand the process.

- Increase provincial and municipal capacity for enforcement.
- Communicate and coordinate between provincial and municipal permitting processes.
- Be transparent with data and decisions. Ensure a public database of wetland approvals, compensation requirements, and compliance and performance on wetland protection, preferably net gain but at least no net loss.

Assessing policy effectiveness requires organized, ongoing monitoring and data collection on wetland losses and wetland gains through the alteration permitting and compensation process.

- Secure adequate long-term funding and resources for up-to-date data collection and monitoring.
- Track and make public compensation project outcomes (size, location, and type of projects; completion and success).
- Track the cumulative impacts of wetland alterations and use cumulative impacts assessment in environmental assessment/alteration permitting decisions.

RECOMMENDATIONS REGARDING WETLAND VALUATION

Recognize wetlands as a public good for the ecosystem services they provide.

Use full cost accounting for valuing wetlands (and loss of wetland value if wetland is destroyed) when assessing wetland alteration applications, identifying WSS, land valuation, and compensation or incentives for private land wetland stewardship.

- Full value (and costs) includes value of biodiversity; ecosystem services (such as flood mitigation, ground water recharges, stream base flow, water quality, carbon capture, air quality etc.); economic contribution of recreation, hunting, fishing, and aesthetic quality to property value; cultural and spiritual pursuits, human health and well-being.

Incorporate full value of wetlands into land valuation.

- Provide incentives for the private protection of wetlands such as compensation to take care of a wetland on private property.

RECOMMENDATIONS REGARDING ECOSYSTEM-BASED/WATERSHED BASED MANAGEMENT

Use a watershed-based approach and ecosystem science to policy and planning; assess and monitor impacts of wetland alteration and loss on a watershed and sub-watershed level.

Use urban planning to protect wetlands by concentrating development instead of sprawling into wildlands which leads to wetland loss as part of the general destruction of the natural landscape.

Use environmental planning – planning ‘with nature’ rather than ‘against’ it – to identify and ensure protection of the many benefits of green infrastructure and naturalization in urban areas.

RECOMMENDATIONS REGARDING COLLABORATION AND COORDINATION BETWEEN GOVERNMENTS AND ACROSS GOVERNMENT

There is a perception that most applications for wetland alteration are approved, and that approvals for wetland alteration fall through administrative and regulatory cracks because wetland management is siloed and uncoordinated across governments. Lack of coordination and collaboration on wetlands protection and management contradicts a watershed and ecosystem-based approach to wetlands management. It creates a lack of trust in wetlands management and prevents access to wetland permitting approvals data.

- Get rid of siloed wetland management, particularly in how wetlands are regulated.
- Collaborate and coordinate wetland protection and management policies, regulations, and initiatives between the different players within governments, between different levels of governments (provincial and municipal), between municipalities (e.g. adjacent, in the same watershed), and outside of government.

RECOMMENDATIONS REGARDING COLLABORATION ACROSS KNOWLEDGE SYSTEMS, PERSPECTIVES, INTERESTS

Seek leadership by and collaboration with local Indigenous communities.

Build coalitions between local grassroots organizations, and between these organizations and landowners and developers to encourage discussion of solutions for stronger wetland management.

RECOMMENDATIONS REGARDING SUPPORT FOR WETLAND CITIZEN SCIENCE AND STEWARDSHIP

Much of the protections for wetlands that are in place are because of the hard work and leadership of local community groups.

- Leverage the power of local community groups working to protect wetlands through advocacy, research, surveillance, organizing action and spreading awareness, and contributing local knowledge for identifying and monitoring local wetlands not included in inventories and social and cultural values in wetland protection.
- Government should provide meaningful funding to local groups to support local capacity in wetland protection.
- Citizen groups and NGOs can learn from one another about the different approaches, techniques, and initiatives used in wetland protection efforts, and their success.

RECOMMENDATIONS REGARDING EDUCATION ON WETLANDS

Prioritize education and positive messaging about wetlands to change perceptions of and understanding about wetlands. Emphasize how they benefit both humans and nature and why protecting them is important.

- Educate about what wetlands are; how they are connected with other ecosystems like beaches, streams, rivers, lakes, and groundwater; their ecosystem services, their economic benefits and how these contribute to resilient communities; their contribution to human health and well-being; their role in climate change mitigation and adaptation in Nova Scotia; and the importance of wetlands in maintaining ecosystem health for current and future generations.
- Directly address youth and families with this messaging and education initiatives.
- Connect people to nature, generally. Help them learn more about local ecosystems and biodiversity and connections to human communities. Wetlands are part of this education.

RECOMMENDATIONS REGARDING BUILDING ON THE MEDIA REPORTING OF WETLAND ISSUES

The media raises awareness about wetlands. Citizens and grassroots groups have become more vocal in communicating concerns about threats to local wetlands as media reporting increases.

- Use the positive feedback loop generated by the media reporting on wetland issues and raising awareness among the public to influence politicians to act on wetland protection.



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Photos are courtesy of: Isabelle Choumiline (page 2), John Gallop (page 4; page 5; page 7; page 8, left), Huan Liu (page 8, right) Becky Parker (page 9; page 11), Collette Robertson (page 10; page 13), Dirk Werle (cover page).